Reply to Office Action mailed May 3, 2005

**REMARKS** 

This paper is presented in response to the Office Action. By this paper, claims 1-3 are amended, and new claims 21-25 are added. Claims 1-25 are now pending in light of the aforementioned new

claims.

Reconsideration of the application is respectfully requested in view of the following remarks. For

the convenience and reference of the Examiner, the remarks are presented in the order in which the

corresponding issues were raised in the Office Action.

I. General Considerations

Applicant notes that the claim amendments and remarks presented herein have been made merely

to clarify the claimed embodiments from elements purported by the Examiner to be taught by the cited

references. Such amendments and remarks, or a lack of remarks, are not intended to constitute, and

should not be construed as, an acquiescence, on the part of the Applicant: as to the purported teachings or

prior art status of the cited references; as to the characterization of the cited references advanced by the

Examiner; or as to any other assertions, allegations or characterizations made by the Examiner in this

case. Applicant reserves the right to challenge the purported teaching and prior art status of the cited

references at any appropriate time.

In addition, the amendments and remarks herein do not constitute, nor are they intended to be, an

exhaustive enumeration of the distinctions between any cited references and the claimed invention.

Rather, the distinctions identified and discussed herein are presented solely by way of example.

II. Claim Rejections

Applicant respectfully notes that a claim is anticipated under 35 U.S.C. § 102(a), (b), or (e) only if

each and every element as set forth in the claim is found, either expressly or inherently described, in a single

prior art reference. Further, the identical invention must be shown in as complete detail as is contained in the

claim. Finally, the elements must be arranged as required by the claim. See Manual of Patent Examining

Procedure ("M.P.E.P.") § 2131.

Turning now to the rejections, the Examiner has rejected claims 1-8 under 35 U.S.C. § 102(b) as

being anticipated by U.S. 6,353,494 to Hamada ("Hamada"). Particularly, the Examiner has

characterized *Hamada* as disclosing "a semi-transparent <u>electrochromic</u> device (item 3); and a plurality of

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electrodes ... configured to conduct electricity to the electrochromic device such that the transparency of the electrochromic device (3) will be affected by an amount proportional to the magnitude of the electricity applied to the electrodes, <u>inherently</u> the intensity of the light signal transmitted through the electrochromic device is affected by an amount proportional to the magnitude of the electricity applied to the plurality of electrodes (col. 11, lines 44-67)." *Emphasis added*. Notwithstanding these assertions by the Examiner, Applicant respectfully submits that the Examiner has failed to establish that *Hamada* anticipates claims 1-8.

For example, Applicant submits that it is well known that one characteristic of "electrochromic" devices such as are recited in the claims is that properties such as the color or tint of such devices can be changed by varying the magnitude of a voltage applied to the electrochromic device. By varying the magnitude of the applied voltage, the depth of the tint can be adjusted and, correspondingly, the intensity of an optical signal passing out of the electrochromic device can be controlled.

In contrast, the passage of *Hamada* cited by the Examiner makes no reference to such a device, nor has the Examiner established that the aforementioned passage teaches or suggests the use of an electrochromic effect to control optical signal intensity. Instead, the passage cited by the Examiner states that "The electro-optic crystal 3 implemented by any crystal having the birefringence property causes a principal axis direction thereof and a refractive index in that direction to change." *Col. 11, lines 53-56. Emphasis added.* Confirmation of this understanding is provided where *Hamada* indicates that "the polarization state of the light passed through the electro-optic crystal 3 is changed by the applied voltage  $V_m$ ." *Col. 2, lines 11-13. Emphasis added.* Thus, the foregoing statements from *Hamada* indicate that application of a voltage to the disclosed electro-optic crystal 3 causes changes with regard to a principal axis and a refractive index associated with the electro-optic crystal and such changes, in turn, affect the polarization state of a signal passing through the electro-optic crystal 3. Applicant thus submits that the disclosed "electro-optic crystal 3" is materially different from the claimed "variable electrochromic optical attenuator."

The Examiner has also cited *Hamada* as "inherently" disclosing the notion that "the intensity of the light signal transmitted through the electrochromic device is affected by an amount proportional to the magnitude of the electricity applied to the plurality of electrodes (col. 11, lines 44-67)." It was noted above however, that the Examiner has not established that any of the results purported to be obtained in connection with operation of the *Hamada* device are due to a photochromic effect. Rather, *Hamada* 

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states that "The change in refractive index of the beam coming into the electro-optic crystal 3 accordingly leads to the change in polarization state of the beam therefrom, whereby an output from the analyzer 4 is changed in optical power." Col. 11, lines 64-67. Emphasis added. In view of this statement, it would appear that Hamada discloses that a change in the power of an optical signal 8 (see Figure 1) is attributable to a change in polarization state, rather than to a photochromic effect as the Examiner has asserted. This understanding is confirmed elsewhere in Hamada, where it is stated that "The emitting light 8 varies in strength according to the polarization state of the light after having passed the electro-optic crystal 3." Col. 2, lines 11-13. Emphasis added.

In view of the foregoing discussion, Applicant respectfully submits that the Examiner has not established that *Hamada* anticipates claim 1, at least because the Examiner has not established that *Hamada* discloses each and every element as set forth in the claim, and because the Examiner has not established that the identical invention is shown in *Hamada* in as complete detail as required by the claim. Applicant accordingly submits that the rejection of claim 1, as well as the rejection of corresponding dependent claims 2-8, should be withdrawn.

## III. Allowable Subject Matter

Applicant acknowledges with thanks the indication of the Examiner that claims 9-20 are allowed, and Applicant also wishes to thank the Examiner for the careful review of those claims.

Applicant submits the following comments concerning the Examiner's statements of reasons for the indication of allowable subject matter in the Office Action. In general, Applicant agrees with the Examiner that the inventions to which claims 9-20 are directed are patentable over the cited references, but respectfully disagrees with the Examiner's statement of reasons for allowance as set forth in the Office Action.

Particularly, Applicant submits that it is improper to characterize a single limitation, or subset of limitations, as constituting the basis for allowance of a claim. Rather, the patentability of a claim <u>is properly determined with reference to the claim as a whole</u>. Accordingly, Applicant does not concede that the reasons for allowable subject matter given by the Examiner are the only reasons that make, or would make, the claims allowable and Applicant does not make any admission or concession concerning the Examiner's statements in the Office Action concerning the allowability of claims 9-20.

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## IV. New Claims 21-25

Applicant respectfully submits that, consistent with the discussion presented herein, new claims 21-25, each of which is directed to a combination that includes, among other things, "an optical transmitter package in communication with the printed circuit board and comprising ... a variable electrochromic optical attenuator arranged to receive an optical signal from the optical transmitter" (emphasis added), are patentably distinct from the devices purported by the Examiner to be disclosed in the references that the Examiner has cited. In this connection, Applicant respectfully notes that reference to the aforementioned exemplary limitation is not intended, nor should it be construed, to be either an admission or assertion by the Applicant that patentability of Applicant's new claims, or any other claims, hinges on the presence of such limitation. Rather, Applicant submits that each of the now pending claims, considered in its respective entirety, patentably distinguishes over the reference cited by the Examiner.

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## **CONCLUSION**

In view of the remarks submitted herein, Applicant respectfully submits that each of the pending claims 1-25 is in condition for immediate allowance. Therefore, reconsideration of the rejections is requested and allowance of those claims is respectfully solicited. In the event that the Examiner finds any remaining impediment to a prompt allowance of this application that could be clarified in a telephonic interview, the Examiner is respectfully requested to initiate the same with the undersigned attorney.

Dated this  $\frac{2P}{2}$  day of October, 2005.

Respectfully, submitted,

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